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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,684

10/11/2005

Takayuki Araki

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SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037

EXAMINER

PEZZUTO, HELEN LEE

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

03/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,684	Applicant(s) ARAKI ET AL.	
	Examiner Helen L. Pezzuto	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 2-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-14 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's addition of claim 14 filed in the response on 2/17/09 is acknowledged. Currently, claims 1 and 14 are under consideration.

Election/Restrictions

1. Claims 2-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/6/08.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US-435) or Nemser et al. (US-747) or EP 0 073 087A1 or WO 00/37971 for the reasons of record.

US 4,966,435 to Matsumoto et al. discloses plastic optical fibers, wherein the core is derived from a copolymer of a perfluorodioxole represented by formula (I), having a glass transition temperature of not lower than 100°C (see abstract; col. 2, lines 32-52). Prior art discloses using 10-90 mol% of perfluoro(2,2-dimethyl-1,3-dioxole) (PDD) and various comonomer including TFE (col. 3, lines 23-28, 42-44; working Examples).

US 5,902,747 to Nemser et al. discloses a method of adding or removing a gas to or from a solution, using a membrane derived from an amorphous copolymer of perfluoro-2,2-dimethyl-1,3-dioxole with various comonomer including the instant TFE (see abstract). Prior art discloses a preferred copolymer glass transition temperature of at least 115°C, and specifically teaches adjusting the Tg by varying the amount of monomer/comonomers such as TFE (col. 4, lines 43-65). A copolymer of PDD and TFE was exemplified (col. 10, Examples 1-13).

EP 0 073 087 A1 discloses amorphous copolymers of perfluoro-2,2-dimethyl-1,3-dioxole with 1-99 % of tetrafluoroethylene, having a glass transition temperature of 85°C or higher (see abstract, page 2, lines 21-24 working Examples). Prior art specifically teaches the increase of

copolymer Tg as the amount of PDD in the copolymer increases (page 3, lines 4-13).

WO 00/37971 discloses contact lens formed from perfluorinated copolymer comprising 20 to 75 mol% of perfluoro-2,2-dimethyl-1,3-dioxole (PDD) (page 4, -5, page 7). Suitable comonomers include the instant TFE (pages 8-10). WO-971 teaches a preferred copolymer glass transition temperature of about 100°C and 140°C (page 11, lines 1-4).

Prior art references discussed above all teach PDD/TFE copolymers having glass transition temperature within the recited range. Prior art specifically disclose adjusting the Tg of the resultant copolymer by varying the amount of PDD and TFE. Accordingly it would have been obvious to one having ordinary skill in the art to produce a copolymer of PDD and TFE having the recited Tg by adjusting the respective ratios of PDD and TFE as suggested, motivated by the reasonable expectation of success. The references appear to be silent regarding the recited intrinsic viscosity. The examiner takes the position that the recited property is inherent in prior art copolymer products because applicant's copolymer and that of the prior art appear to be identical and within the recited amount. There is a reasonable presumption that the properties of identical chemical entities would be inherently the same. The burden is upon the

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applicant to provide evidence that the prior art copolymer products do not necessarily or inherently possess the intrinsic viscosity property of applicant's claimed copolymer product.

Response to Arguments

Applicant's addition of claim 14 and remarks filed on 2/17/09 have been fully considered. The crux of applicant's argument lies in prior art Tg in the Examples are outside of the recited range, and the references are silent regarding the recited intrinsic viscosity. All prior art references disclose copolymer Tg within the recited range. Furthermore, guidance was provided to modify or adjust the Tg of the resultant copolymer by varying the proportions of the PDD and comonomer such as TFE. Thus, it would have been obvious to one having ordinary skill in the art to determine the optimum or working ranges of copolymer Tg within prior art general conditions via routine experimentation. Regarding the recited intrinsic viscosity, the examiner remains of the position that it is an inherent characteristic which necessarily flow from the teaching of the prior art. It is a reasonable presumption that the characteristic of the same or obvious chemical entities would be the same. Thus, a PDD/TFE copolymer having the recited intrinsic viscosity would be an inevitable consequence of practicing prior art invention. Finally, applicant urges that

the apparent melt viscosity in Examples 1 and 3 of EP-087 differs than those in applicant's Examples 1-3, and conclude that the intrinsic viscosity of EP-087 would also be outside of applicant's claimed range. The examiner disagrees. Firstly, the relative mol% of PDD and TFE are different in the corresponding Examples. Thus, one would expect the respective apparent melt viscosity to be different, absent side-by-side comparison. Secondly, applicant has not shown the direct relationship between intrinsic viscosity and apparent melt viscosity. Conclusory statements cannot take place of evidence. Accordingly, the examiner's position is maintained.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Helen L. Pezzuto/
Primary Examiner
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hlp